Remarks

1-34 (canceled).

35 (new). An isolated polypeptide comprising a mutated mature human MCP-1 polypeptide (amino acids 24 through 99 of SEQ ID NO: 1) having amino acid substitutions at least at positions 18 and 19, as numbered on the sequence of mature human MCP-1 or a fragment of a mutated mature human MCP-1 polypeptide having amino acid substitutions at least at positions 18 and 19, as numbered on the sequence of mature human MCP-1, wherein said amino acids at positions 18 and 19 are substituted with any of Alanine, Glycine, Serine, Threonine, Proline, Aspartic acid, Asparagine, Glutamic acid, or Glutamine and said polypeptide or said fragment has an antagonistic activity to MCP proteins.

36 (new). The polypeptide of claim 35, wherein the amino acids at positions 18 and 19 are substituted with Alanine.

37 (new). The polypeptide of claim 35, wherein said polypeptide further comprises the substitution of the amino acid at position 58, as numbered on the sequence of human mature MCP-1, with Alanine, Glycine, Serine, Threonine, Proline, Aspartic acid, Asparagine, Glutamic acid, or Glutamine.

38 (new). The polypeptide of claim 35, wherein said polypeptide further comprises the substitution of the amino acid at position 66, as numbered on the sequence of human mature MCP-1, with Alanine, Glycine, Serine, Threonine, Proline, Aspartic acid, Asparagine, Glutamic acid, or Glutamine.

39 (new). The polypeptide of claim 35, wherein said polypeptide further comprises the substitution of the amino acids at positions 58 and 66, as numbered on the sequence of human

mature MCP-1, with any of Alanine, Glycine, Serine, Threonine, Proline, Aspartic acid, Asparagine, Glutamic acid, or Glutamine.

40 (new). The polypeptide of claim 35, wherein said polypeptide further comprises the substitution of one or more of the amino acids at positions 24, 44, 49 and 75, as numbered on the sequence of human mature MCP-1, with any of Alanine, Glycine, Serine, Threonine, Proline, Aspartic acid, Asparagine, Glutamic acid, or Glutamine.

41 (new). The polypeptide of claim 35, further comprising one or more amino acid residues having been added, deleted, or substituted without interfering with the antagonistic activity of said polypeptide.

42 (new). The polypeptide of claim 35, further comprising an amino acid sequence belonging to a protein sequence other than the corresponding MCP protein.

43 (new). The polypeptide of claim 35, wherein said polypeptide is in the form of active fractions, precursors, salts, or derivatives.

44 (new). The polypeptide of claim 35, wherein the MCP proteins are proteins having at least 70% of homology with the human mature MCP-1, MCP-2, MCP-3, MCP-4, or Eotaxin.

45 (new). The polypeptide of claim 35, wherein the MCP proteins are human MCP-1, human MCP-2, human MCP-3, human MCP-4, or human Eotaxin.

46 (new). The polypeptide of claim 35, said polypeptide comprising SEQ ID NO: 3.

47 (new). The polypeptide of claim 35, further comprising a molecule chosen from radioactive labels, biotin, fluorescent labels, cytotoxic agents, or drug delivery proteins.

48 (new). The polypeptide of claim 42, wherein the amino acid sequence belonging to a protein sequence other than the corresponding MCP protein comprises an: extracellular domain of membrane-bound protein, immunoglobulin constant region, multimerization domain, extracellular protein, signal peptide-containing protein, or an export signal-containing proteins.

49 (new). An isolated nucleic acid encoding a polypeptide according to claim 35.

50 (new). An expression vector comprising the nucleic acid of claim 49.

51 (new). A host cell transformed with a vector of claim 50.

52 (new). A process of preparing a MCP antagonist comprising culturing the transformed cells of claim 51 and collecting the expressed antagonist.

53 (new). A composition comprising a carrier and a polypeptide according to claim 35.

54 (new). A method of reducing leukocyte migration and activation comprising contacting leukocytes with a composition according to claim 53.

55 (new). A method of treating a disease or disorder comprising the administration of an effective amount of a composition to claim 53 to an individual in need of treatment for a disease or disorder.

56 (new). The method of claim 55, wherein the disease or disorder is selected from the group consisting of vascular disorders, cancer, inflammatory diseases, autoimmune diseases, and infection.